

FIG. 1
RELATED ART

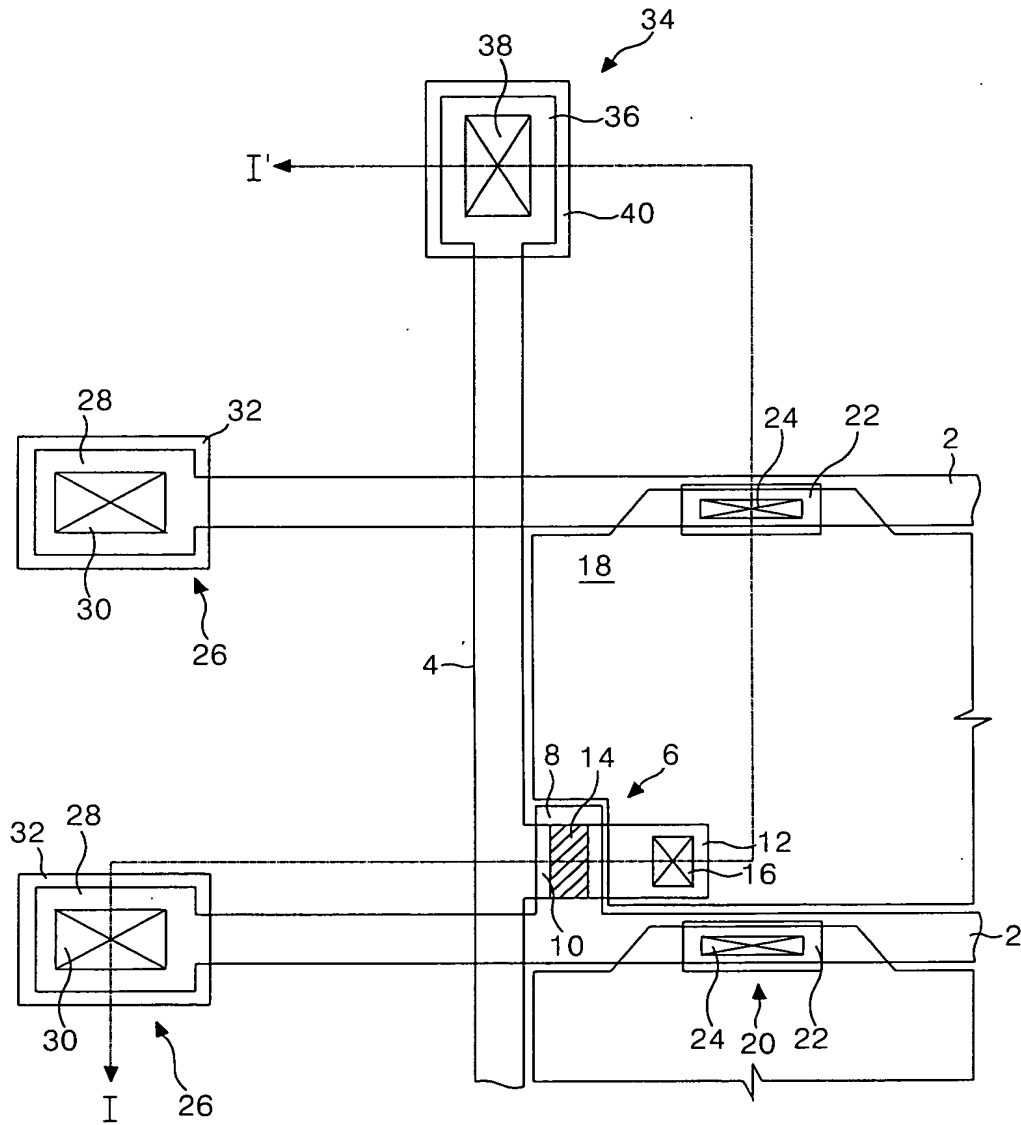


FIG. 2
RELATED ART

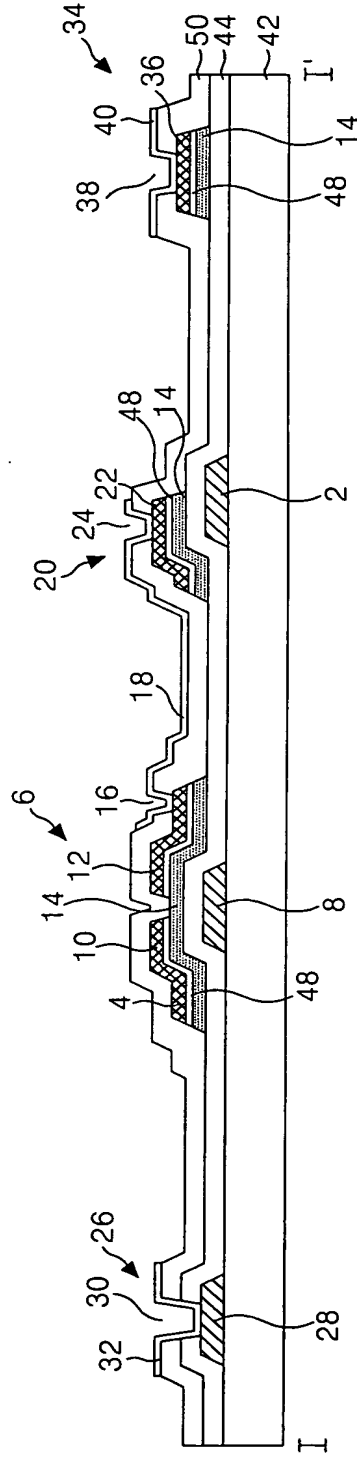


FIG. 3A
RELATED ART

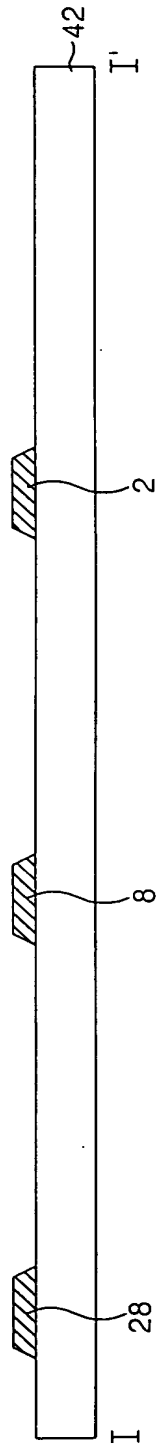
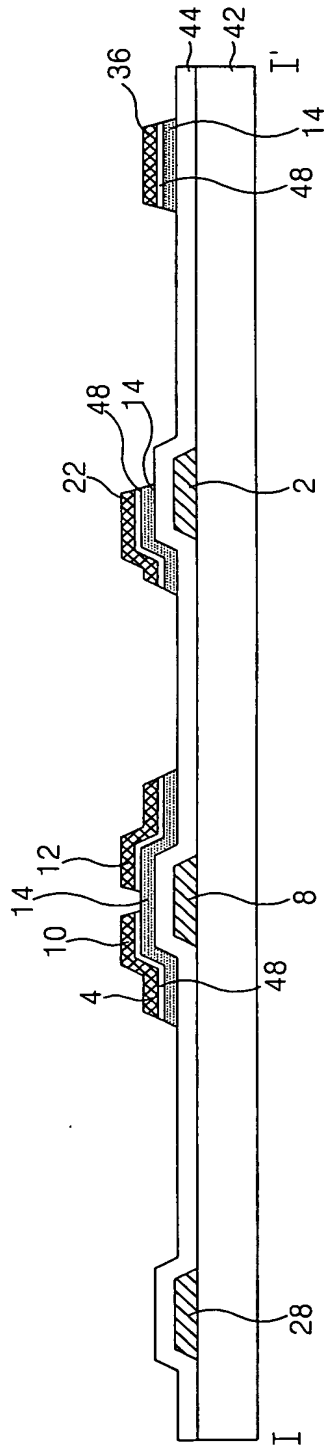


FIG. 3B
RELATED ART

RELATED ART



A cross-sectional view of a semiconductor device. The device consists of a substrate 2 with a top surface 14 and a bottom surface 42. A series of layers are deposited on the top surface 14. From left to right, the layers are: a first layer 4, a second layer 10, a third layer 12, a fourth layer 16, a fifth layer 22, a sixth layer 24, a seventh layer 28, and an eighth layer 30. Each of these layers is patterned into a series of rectangular blocks. Between these blocks, there are recessed regions. In some of these recessed regions, there are additional layers: a layer 8 in the recess between the first and second blocks, a layer 14 in the recess between the second and third blocks, a layer 18 in the recess between the third and fourth blocks, a layer 20 in the recess between the fourth and fifth blocks, a layer 26 in the recess between the fifth and sixth blocks, and a layer 32 in the recess between the sixth and seventh blocks. The top surface of the device is labeled 36. A cross-section line I-I' is indicated at the right end of the device.

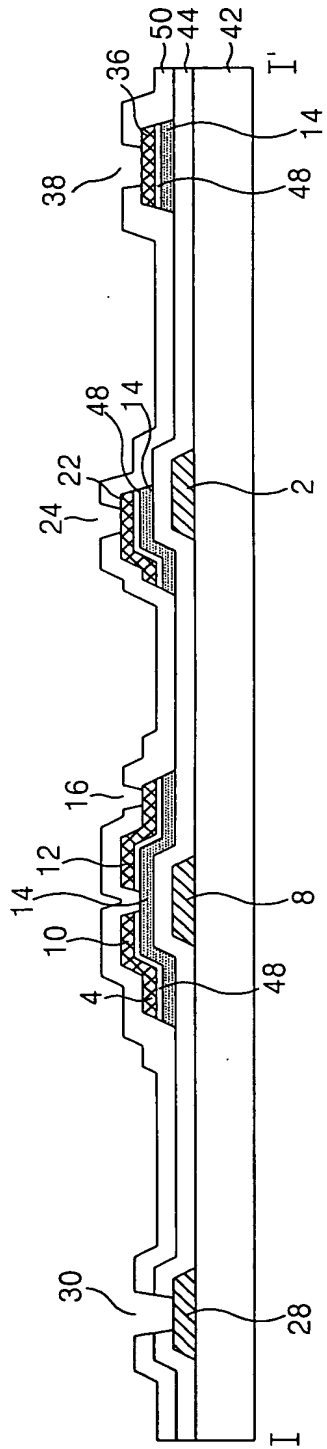


FIG. 3D

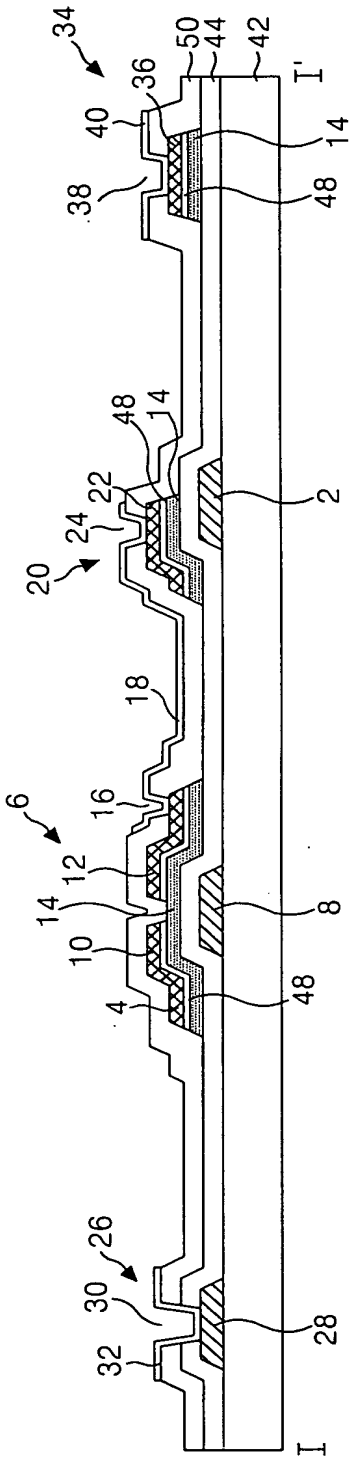


FIG. 4A

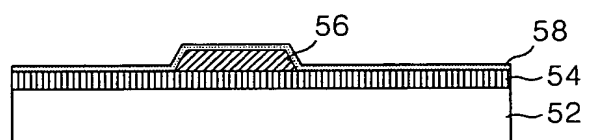


FIG. 4B

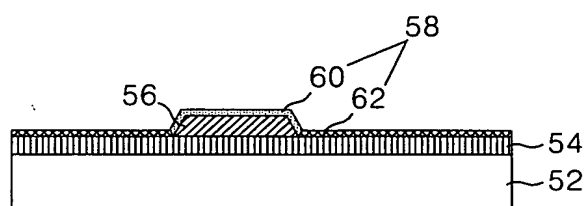


FIG. 4C

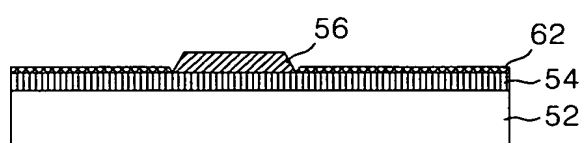


FIG. 5A

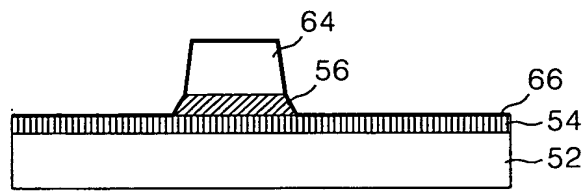


FIG. 5B

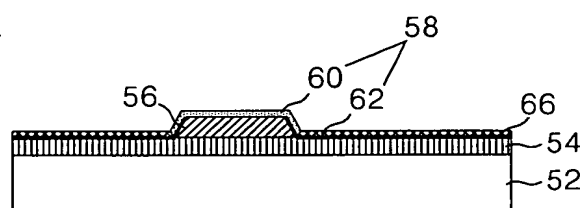


FIG. 5C

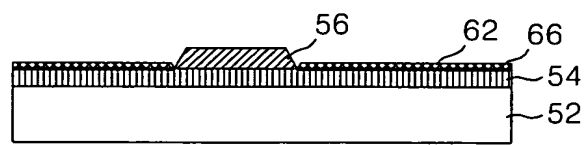


FIG. 6A

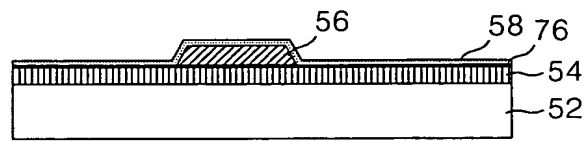


FIG. 6B

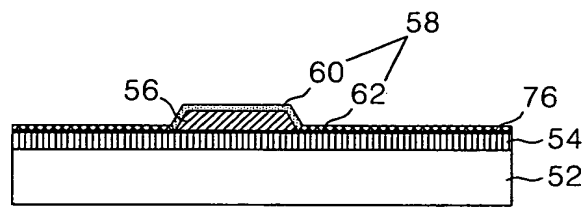


FIG. 6C

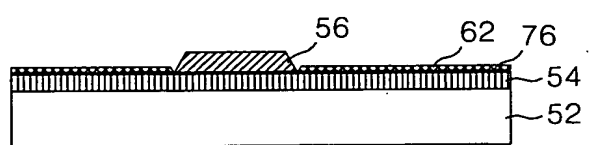


FIG. 7

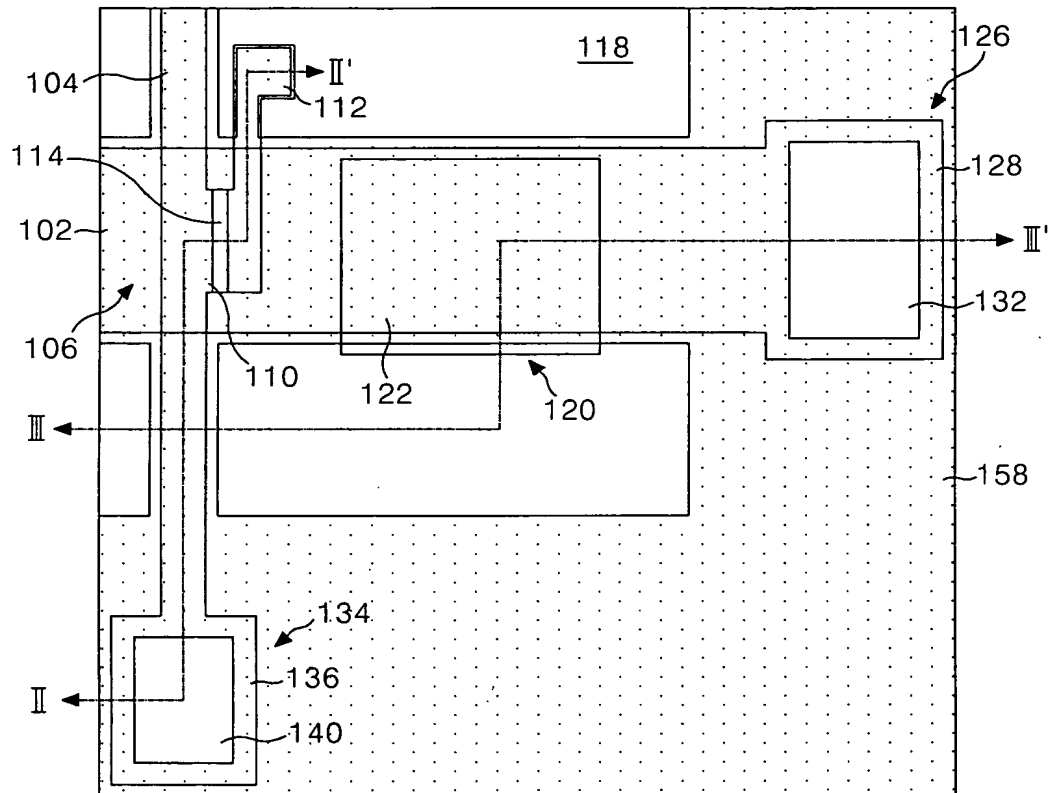


FIG.8

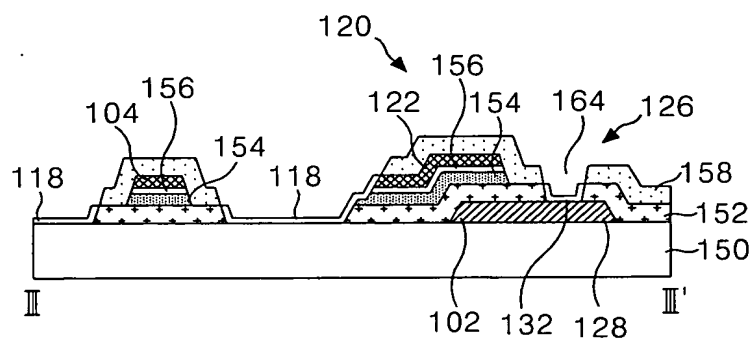
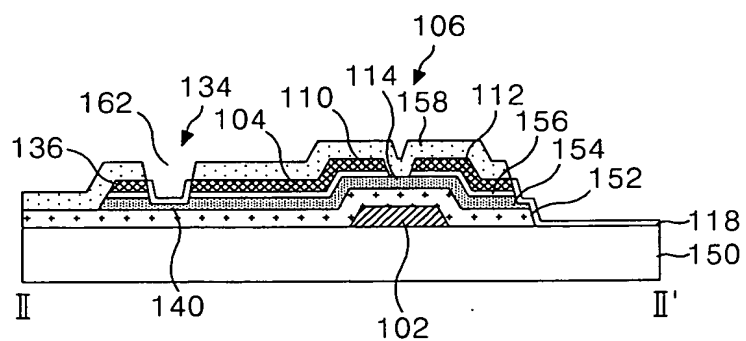


FIG.9A

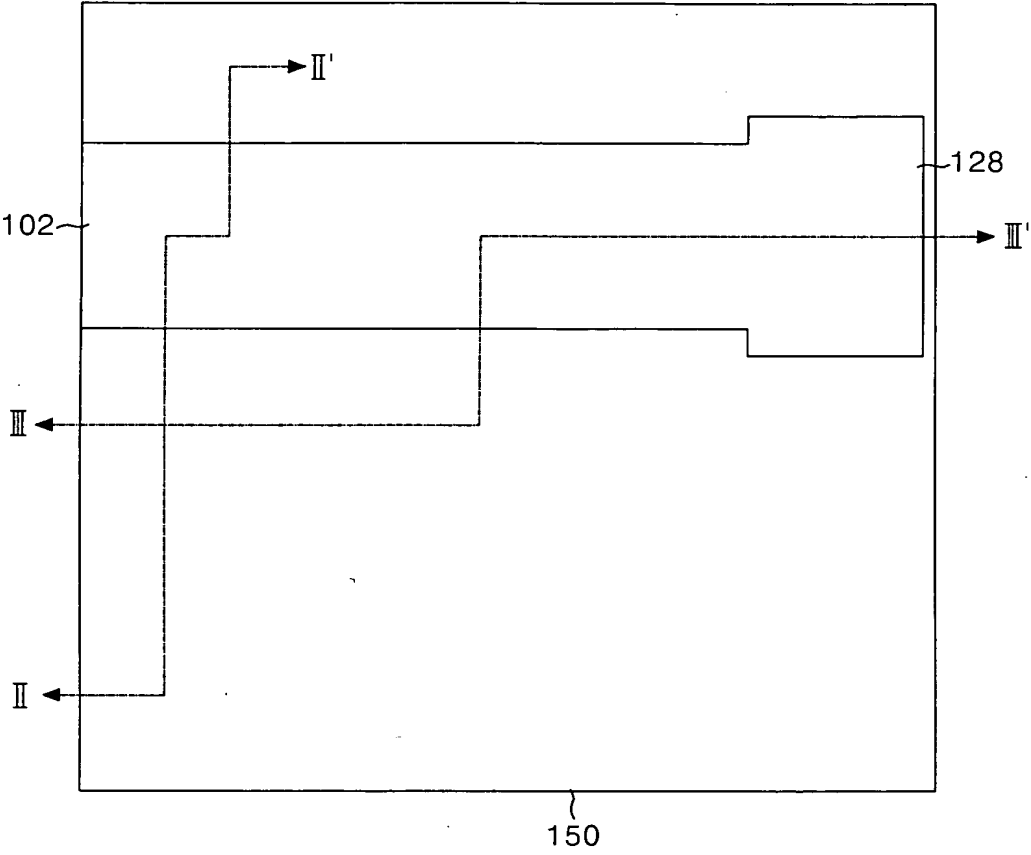


FIG. 9B

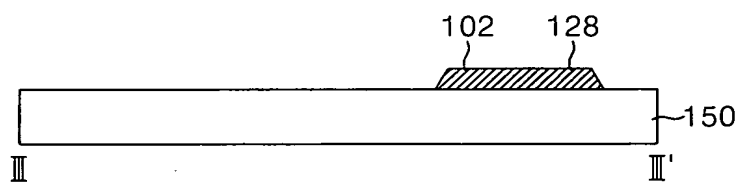
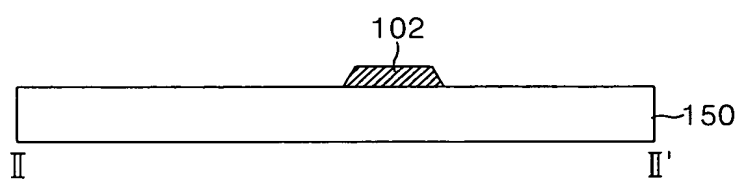


FIG. 10A

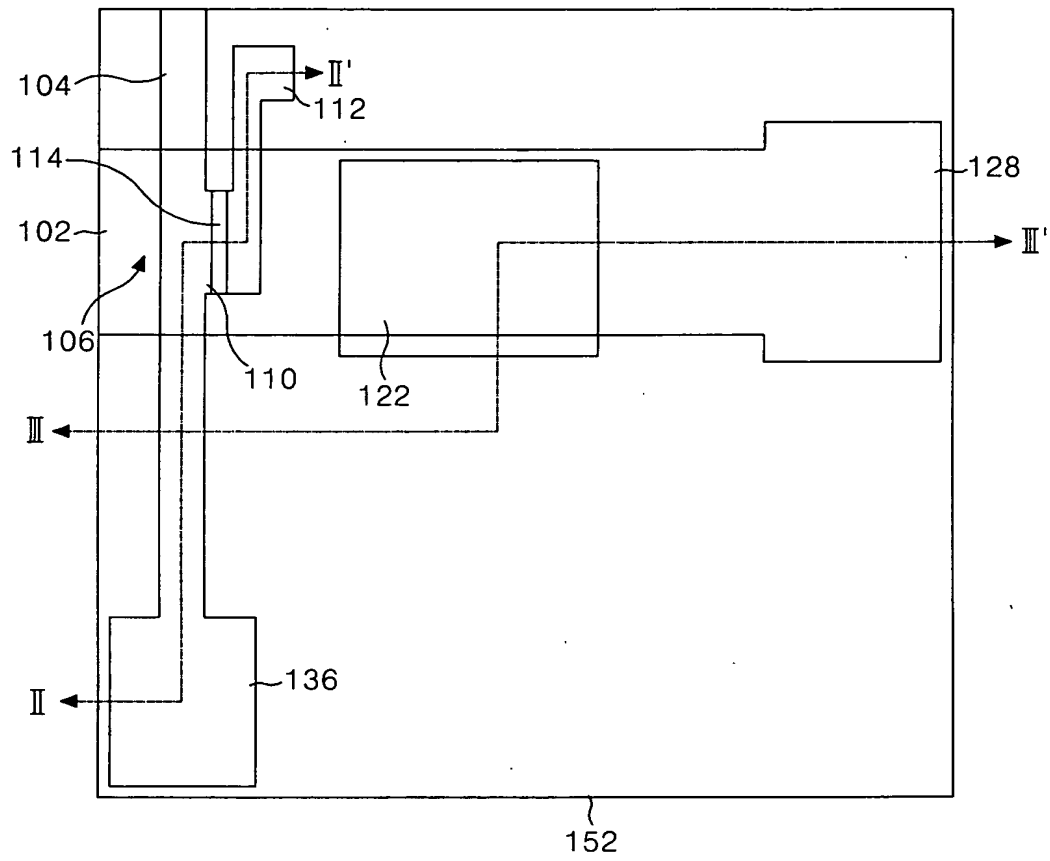


FIG. 10B

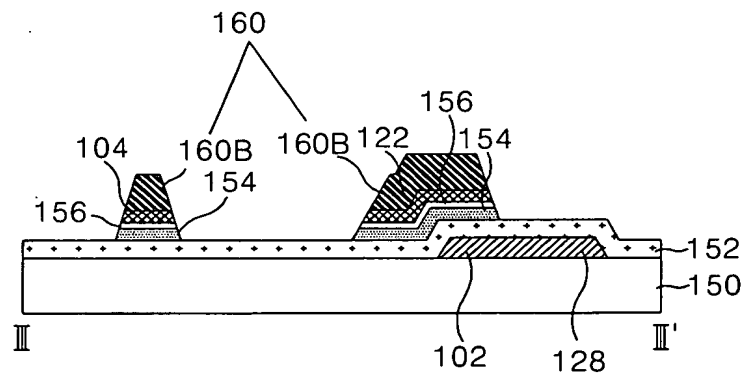
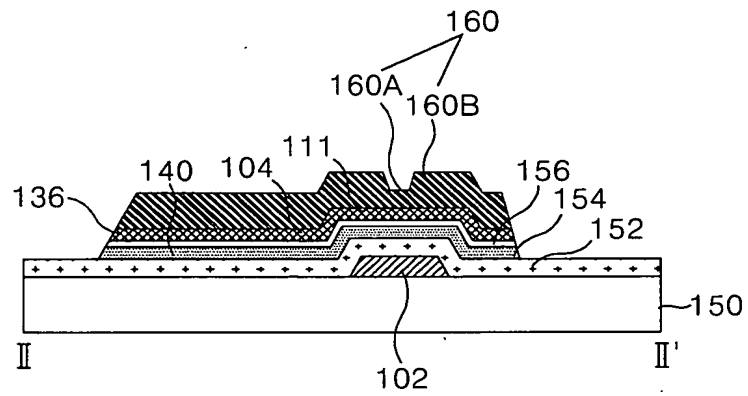


FIG. 10C

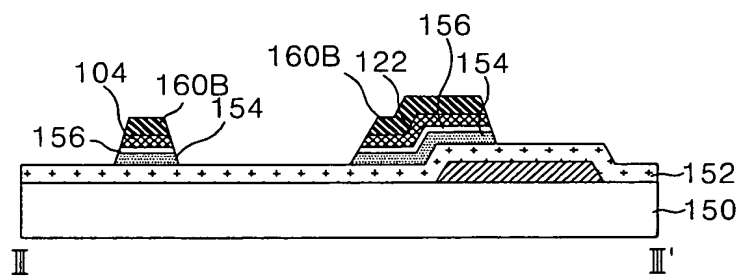
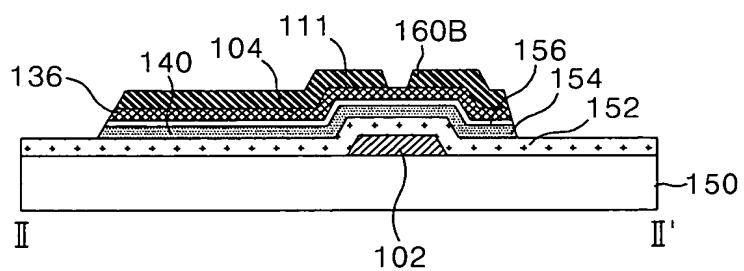


FIG. 10D

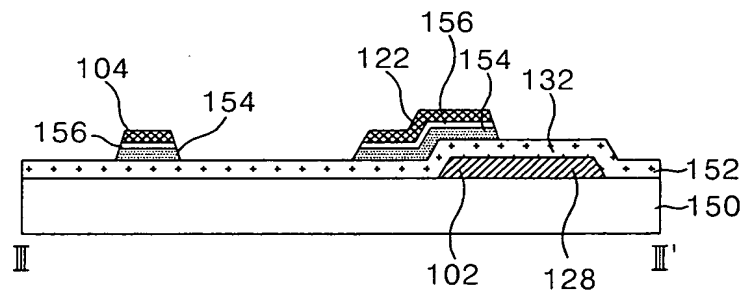
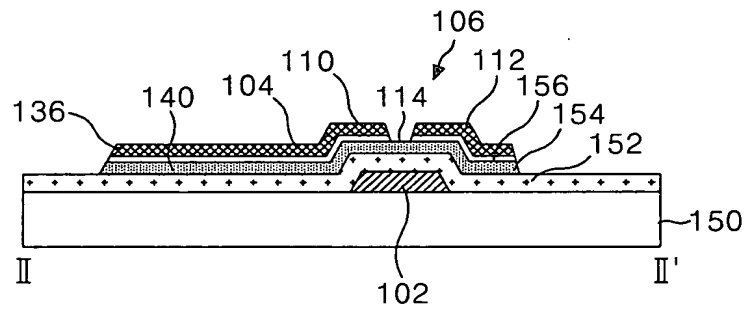


FIG. 11A

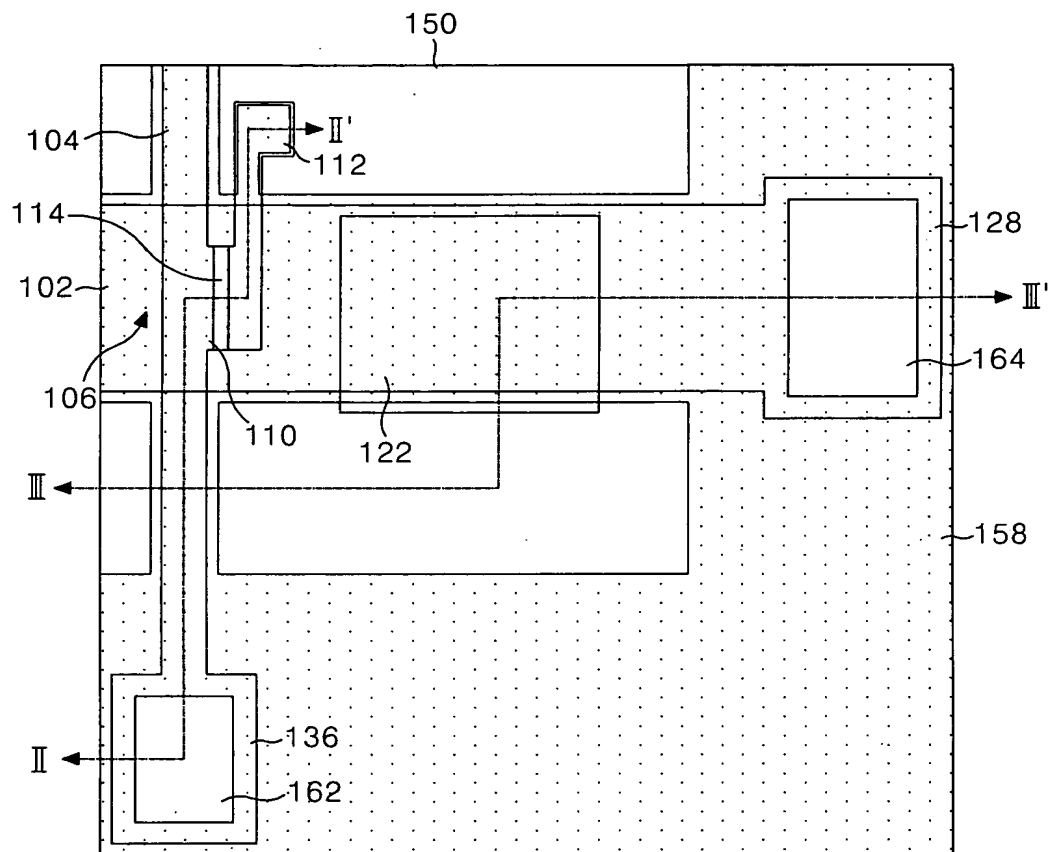


FIG. 11B

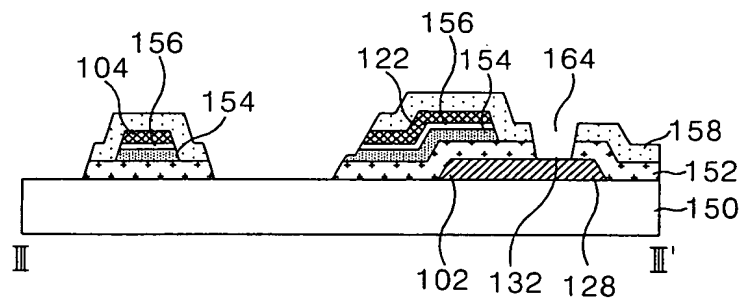
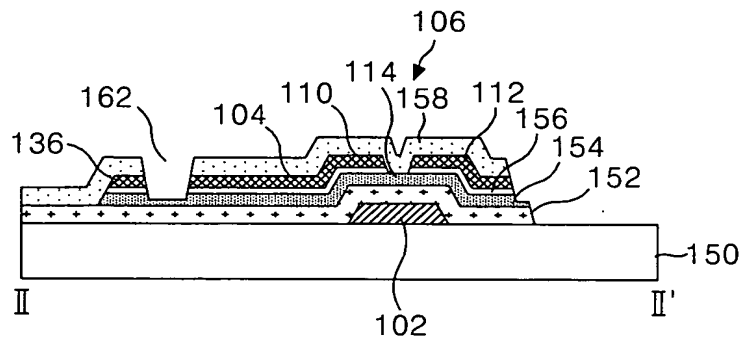


FIG.12A

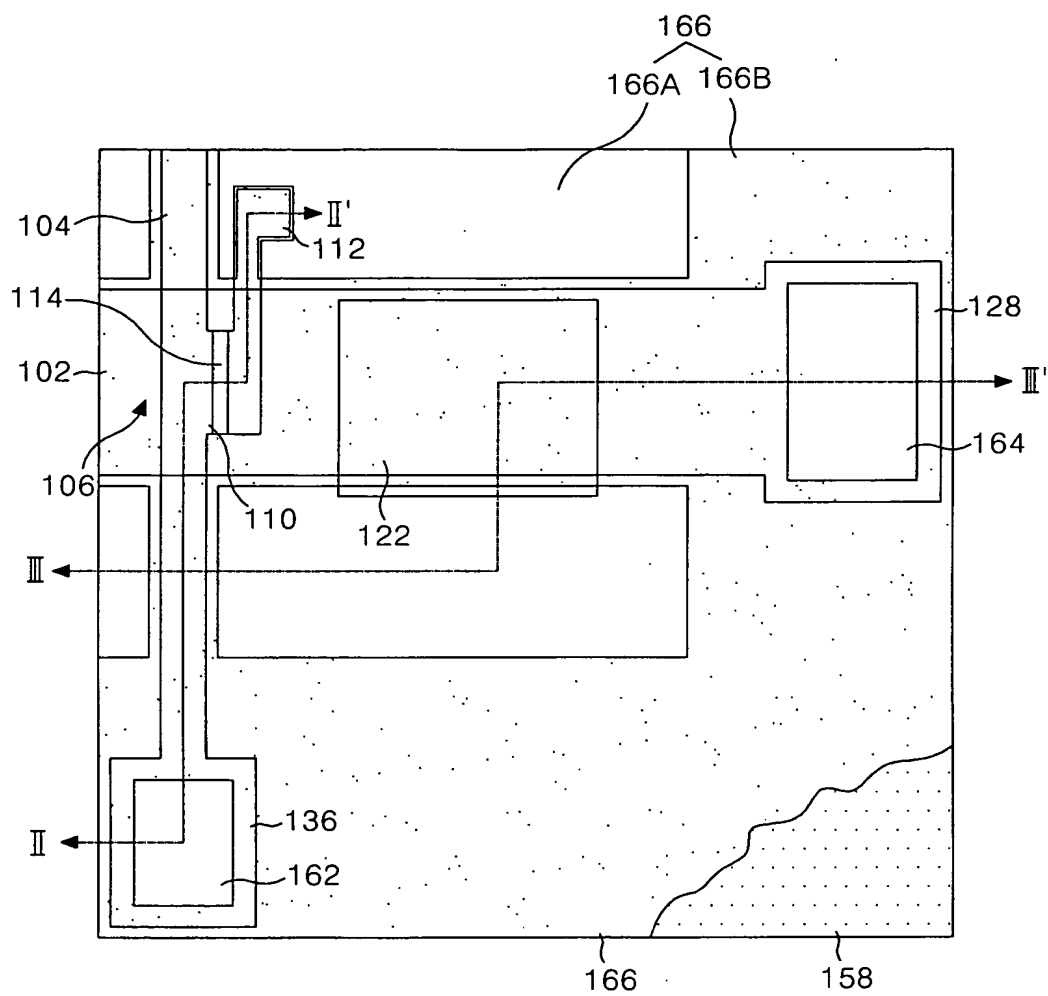


FIG. 12B

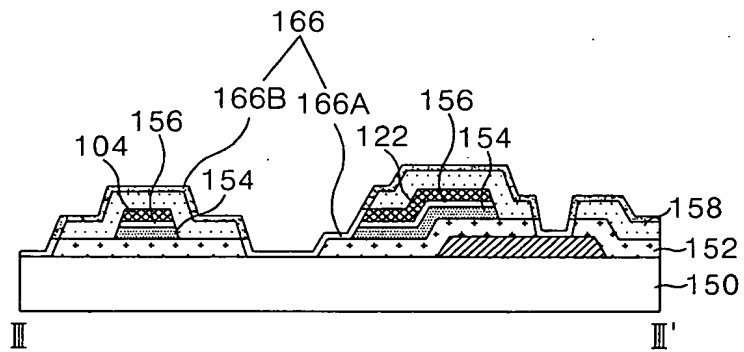
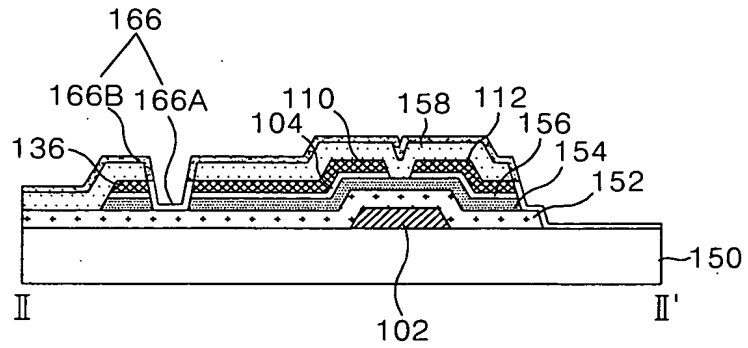


FIG. 13A

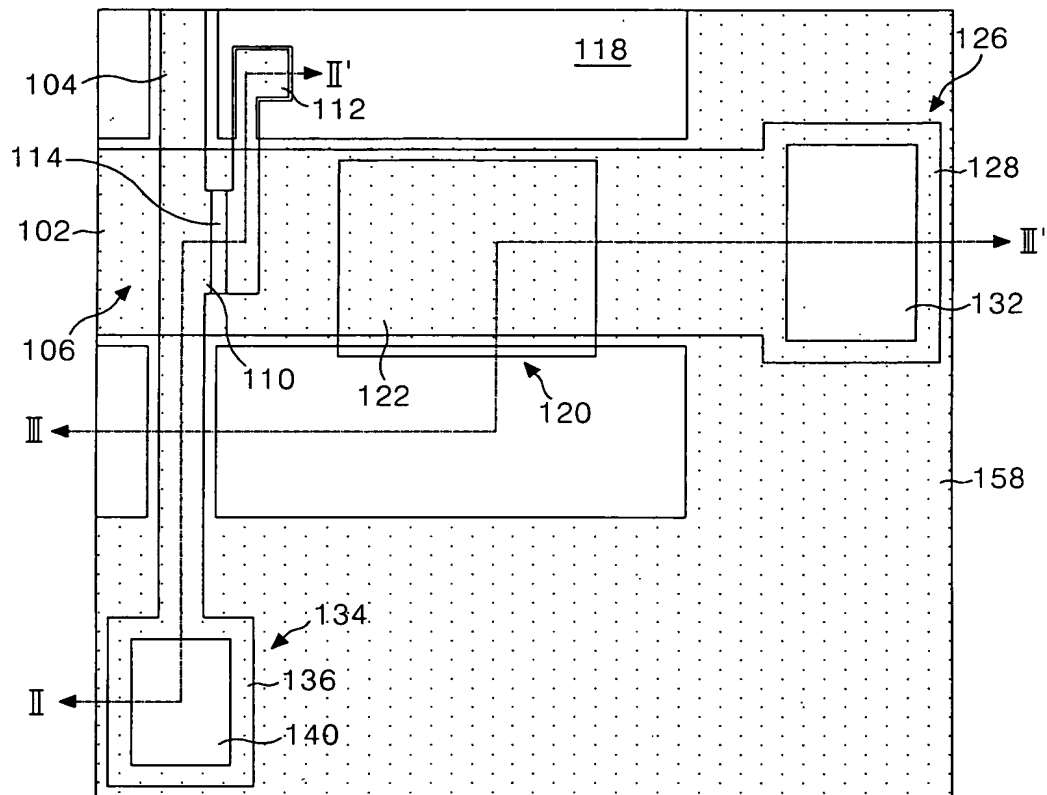


FIG. 13B

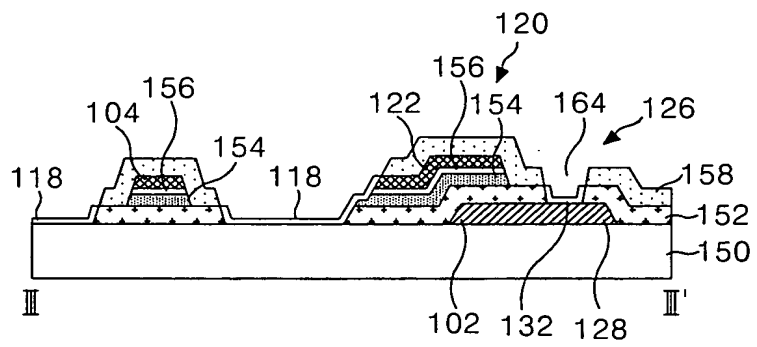
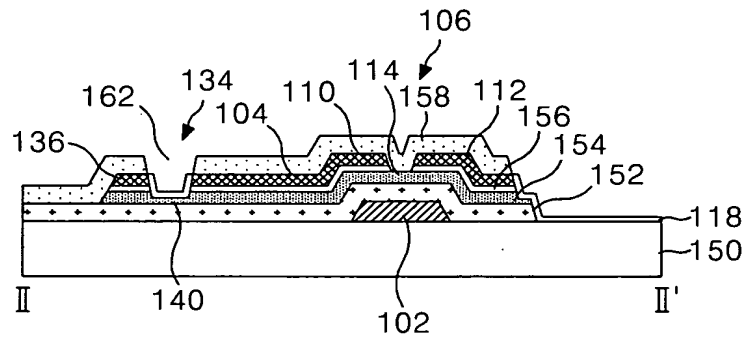


FIG. 14A

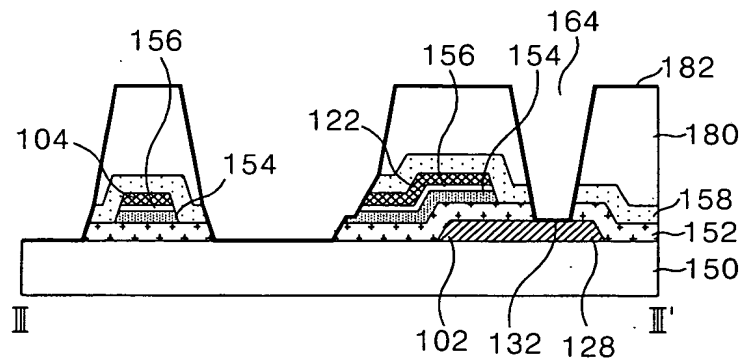
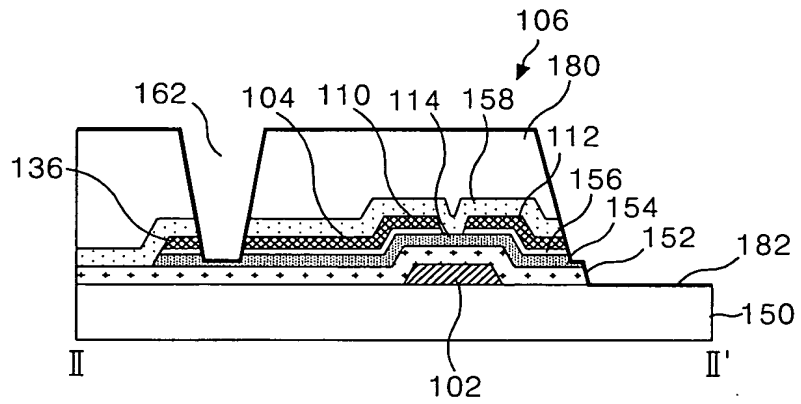


FIG. 14B

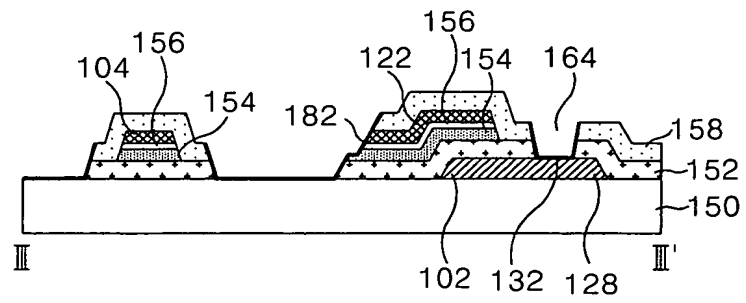
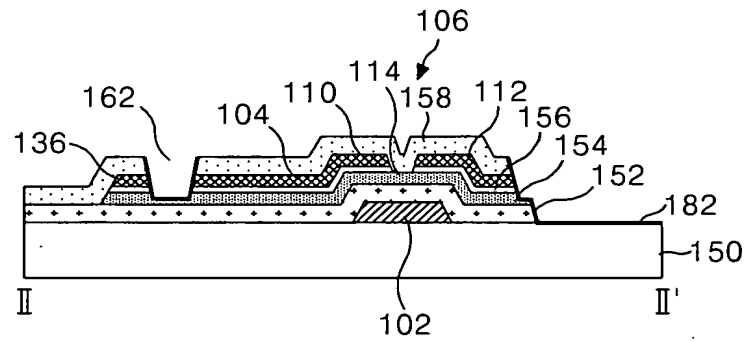
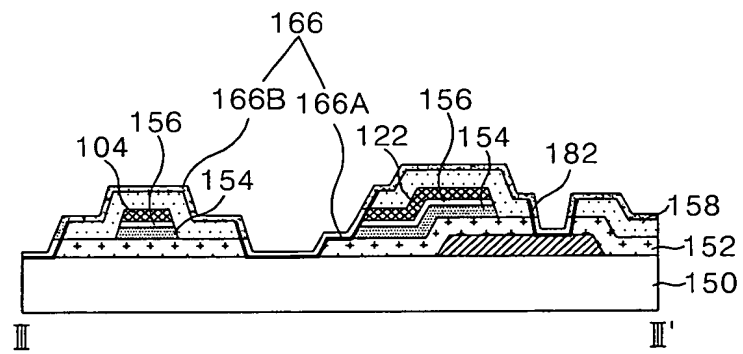
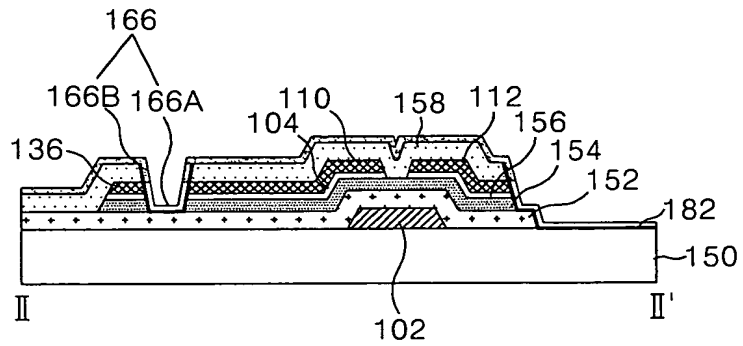


FIG. 14C



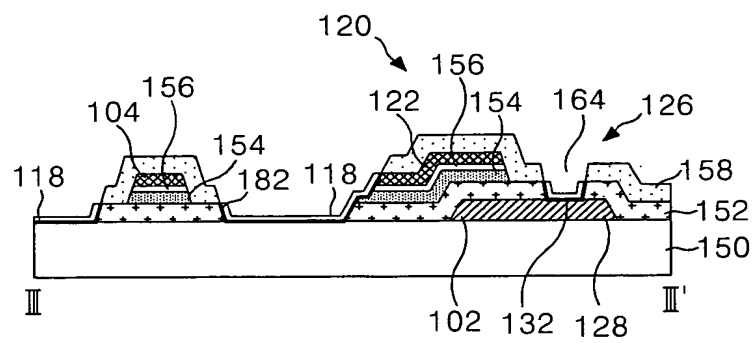
[illegible]

FIG. 15A

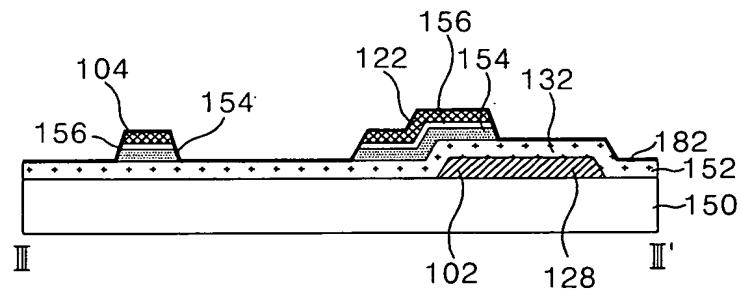
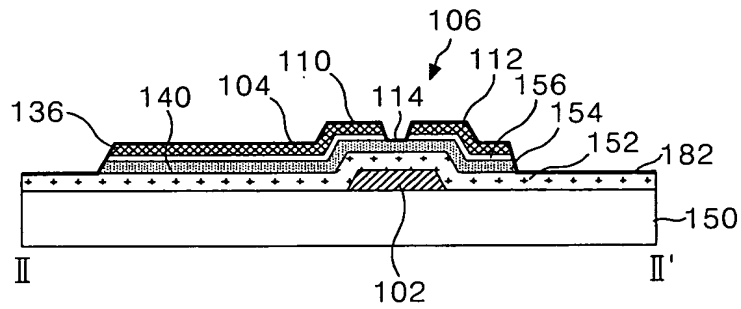


FIG. 15B

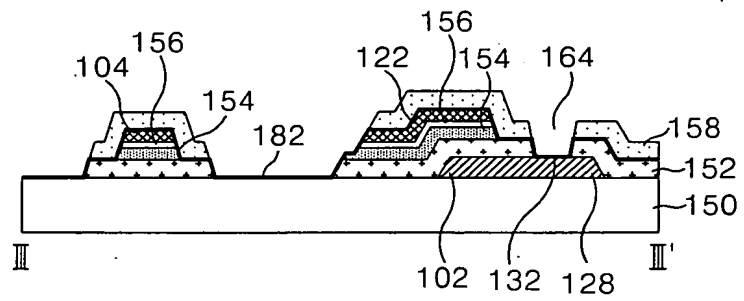
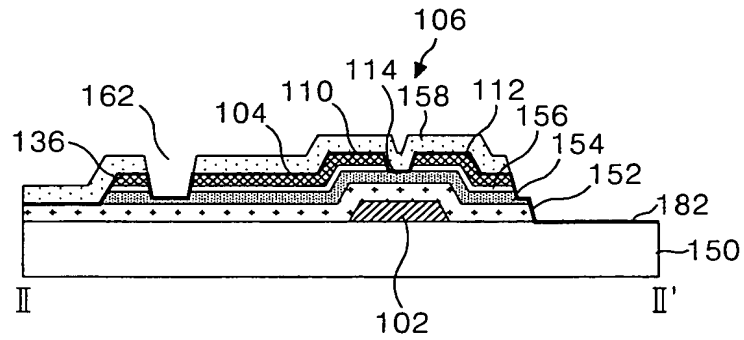


FIG. 15C

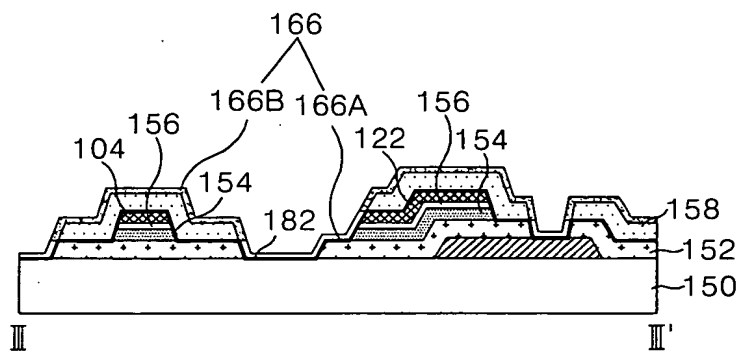
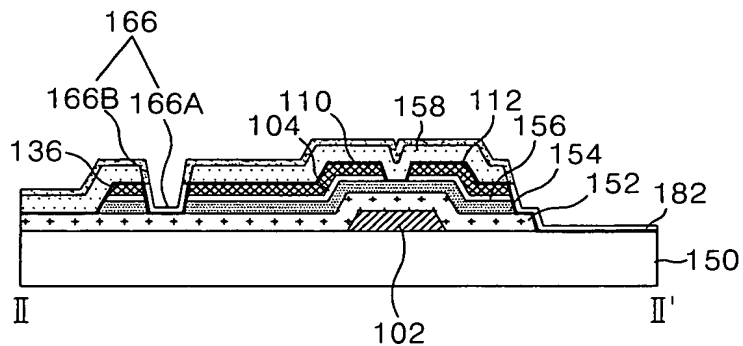


FIG. 15D

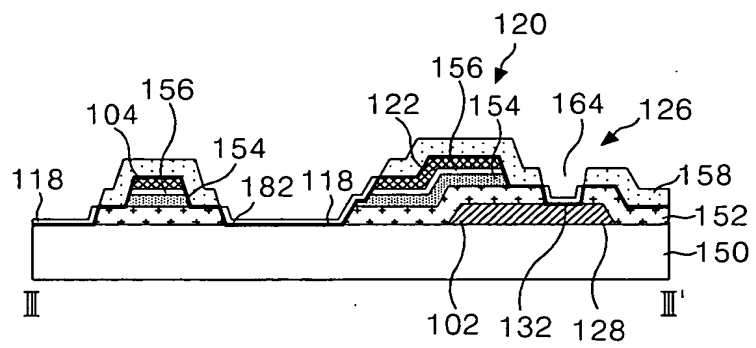
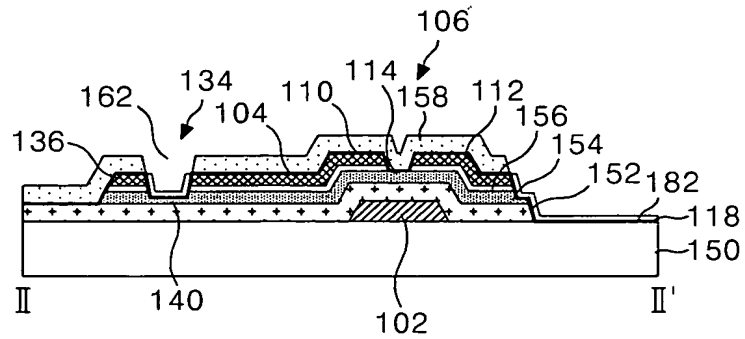


FIG. 16

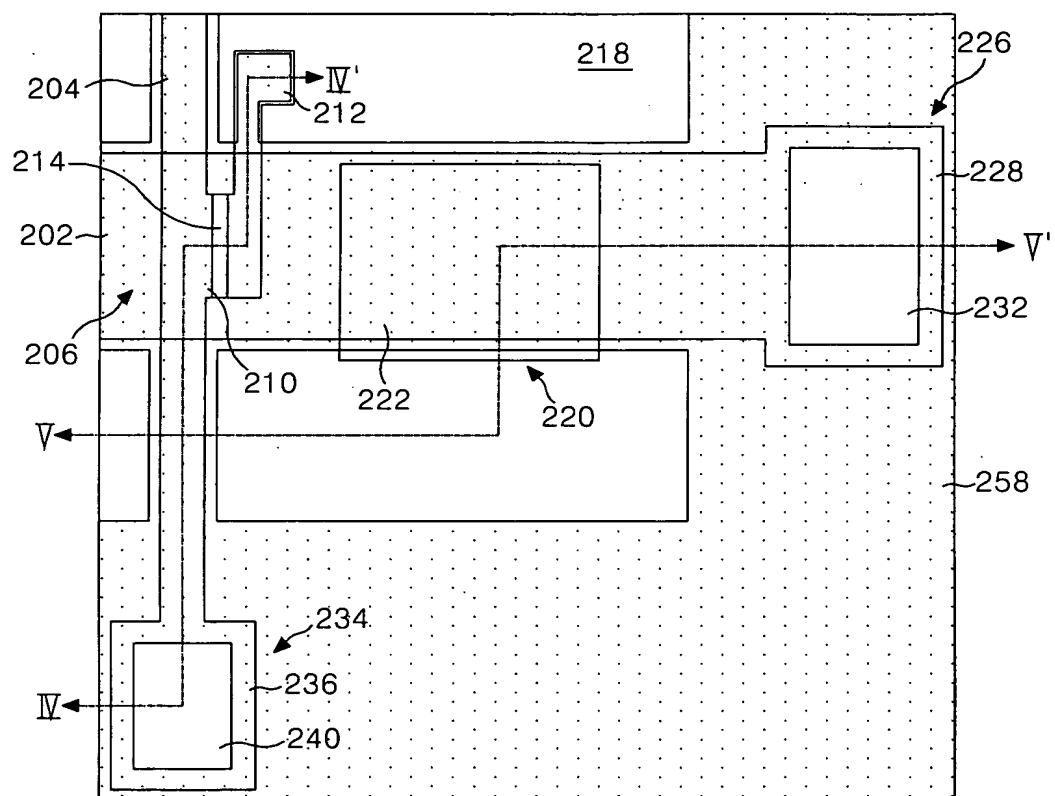


FIG.17

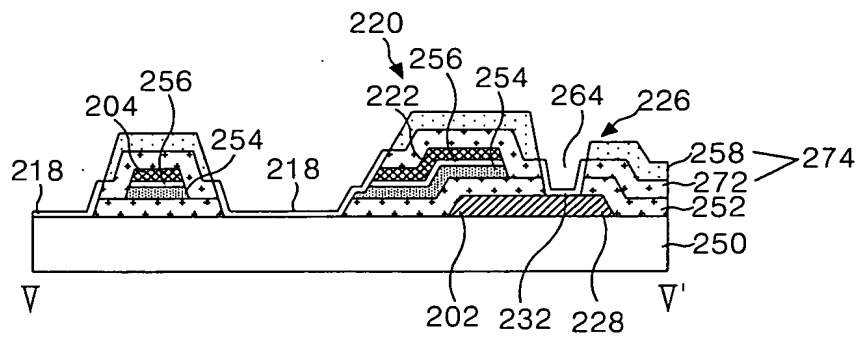
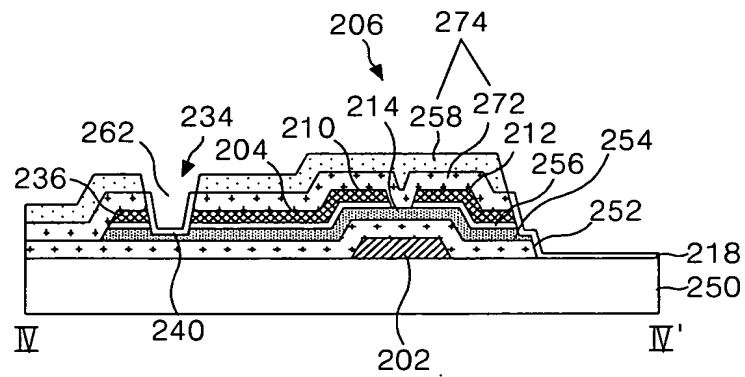


FIG. 18A

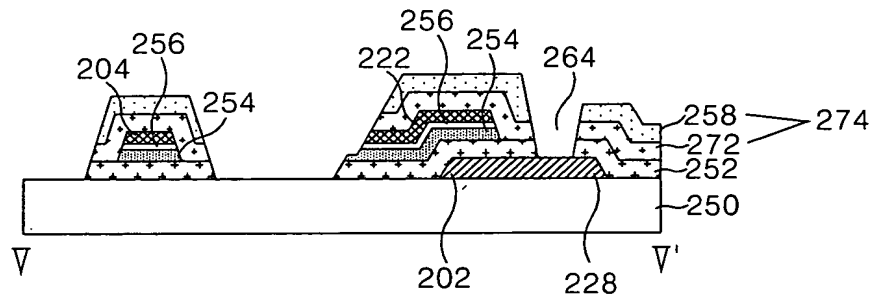
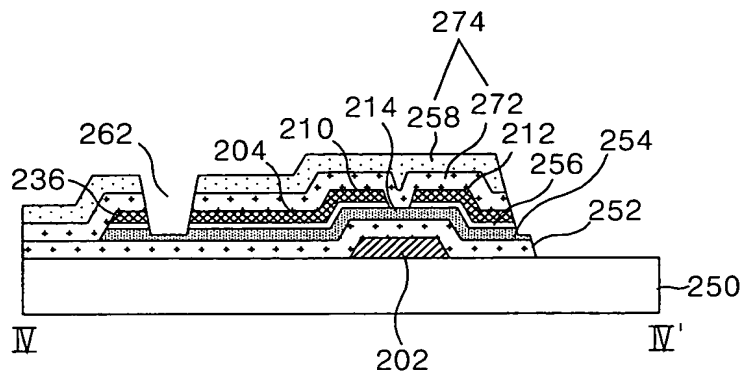
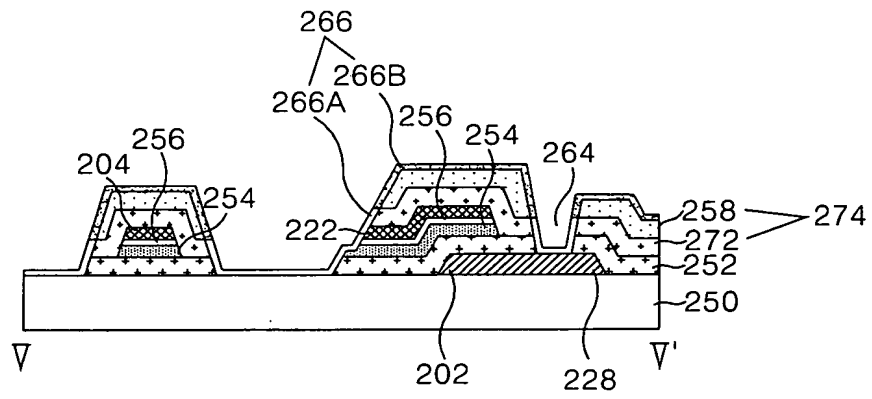
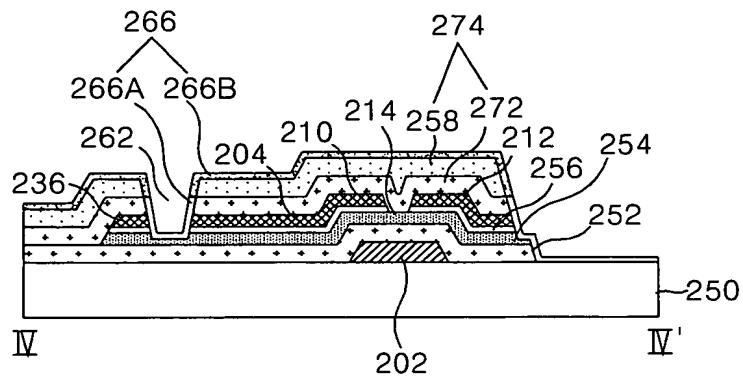
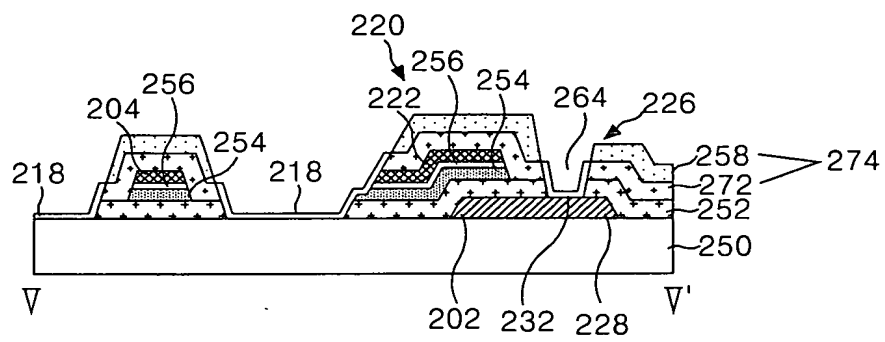


FIG. 18B



This cross-sectional view shows a substrate 202 with a base layer 218 and a patterned layer 250. A series of layers are deposited on top, including a layer with cross-hatching (204) and a layer with dots (210). A central trench 206 is formed, with a bottom layer 214 and a top layer 274. The trench is flanked by regions 234 and 262. Other labeled regions include 212, 258, 272, 256, 254, 252, 236, and 240. The cross-section is taken along line IV-IV'.



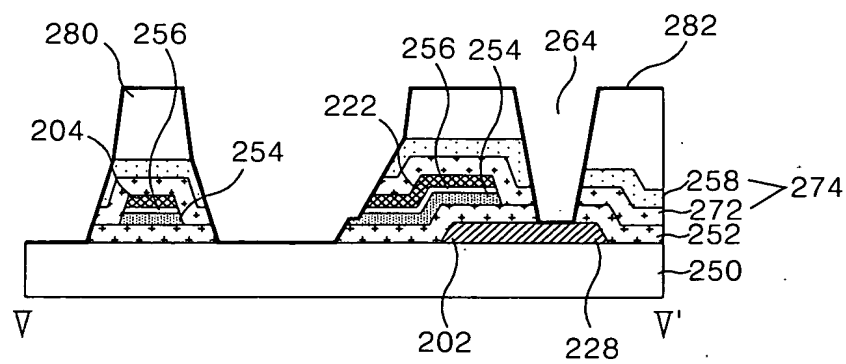


FIG. 19B

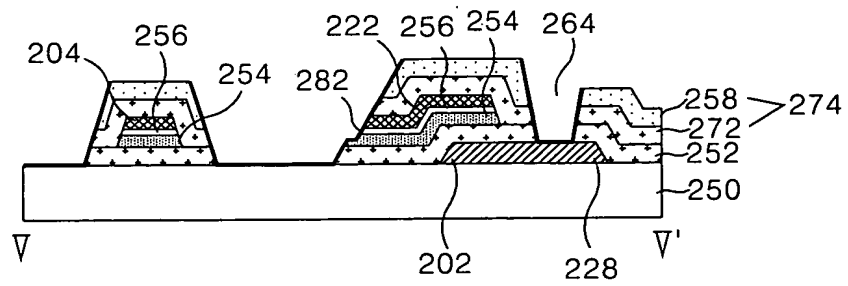
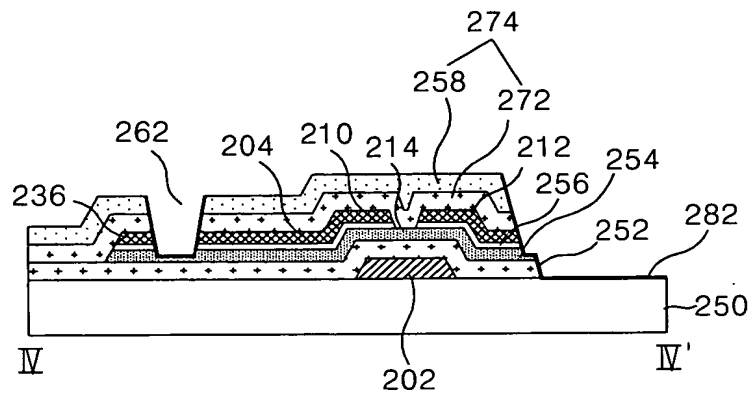


FIG. 19C

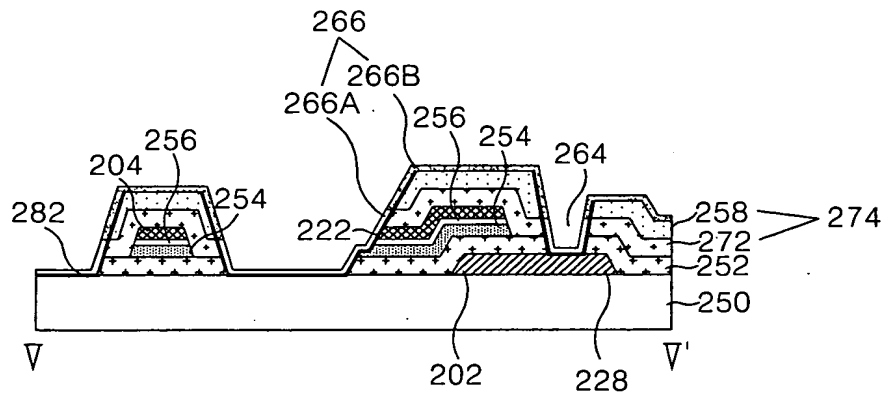
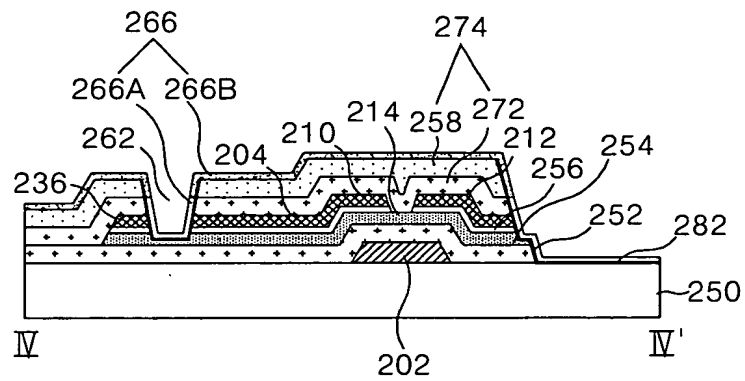


FIG. 19D

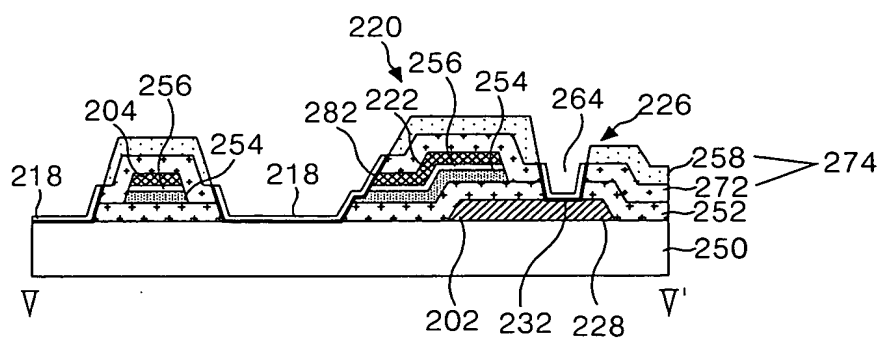
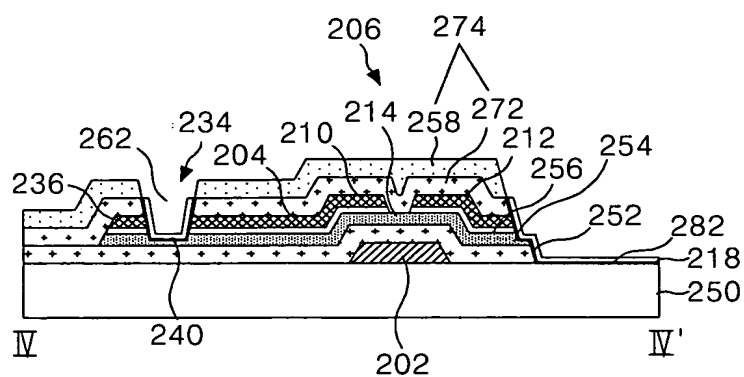


FIG. 20A

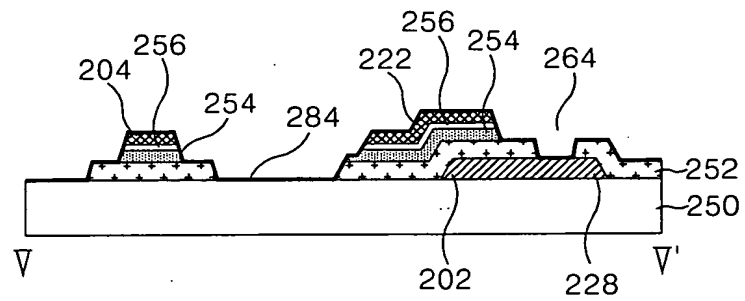
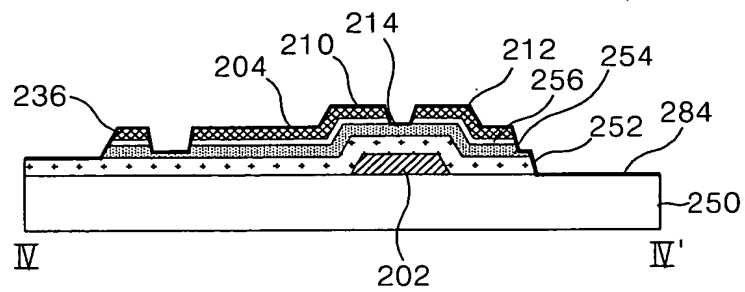


FIG. 20B

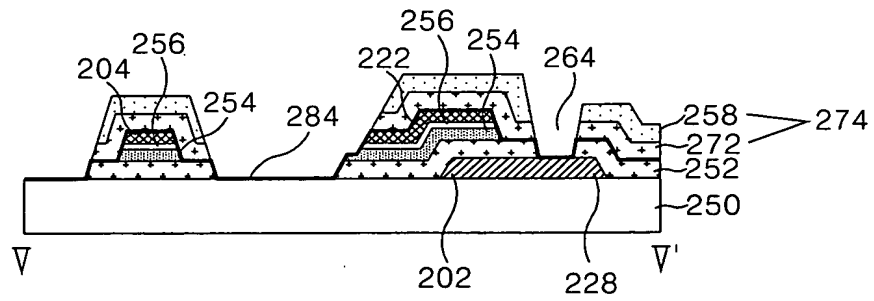
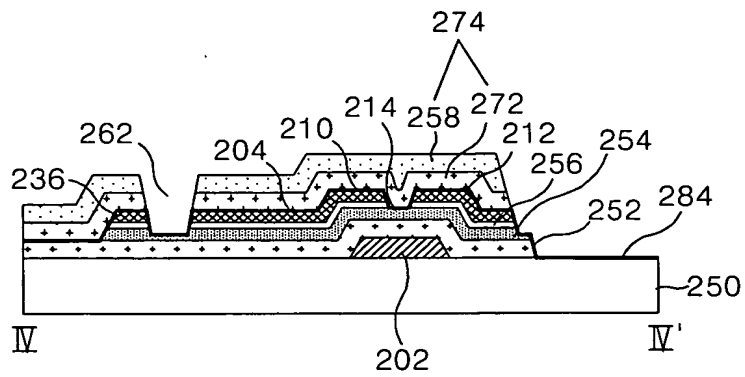
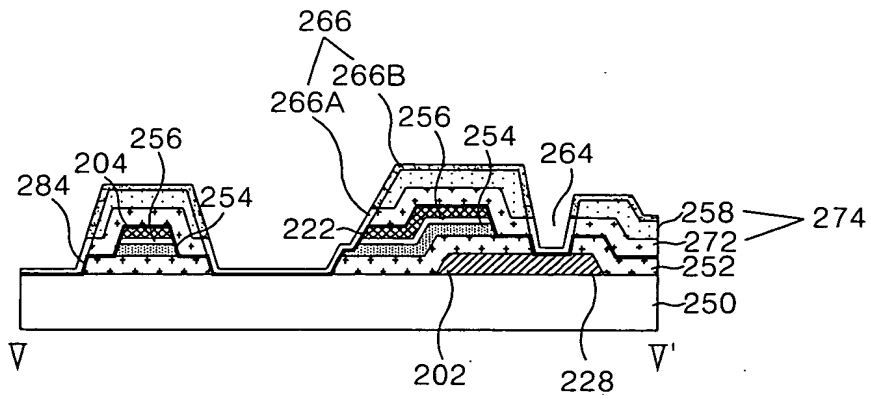
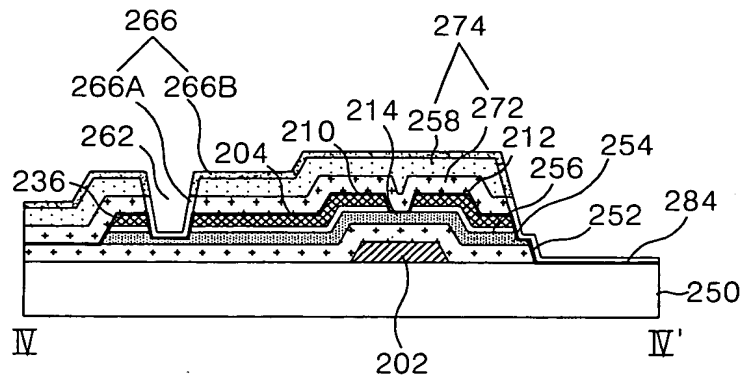


FIG. 20C



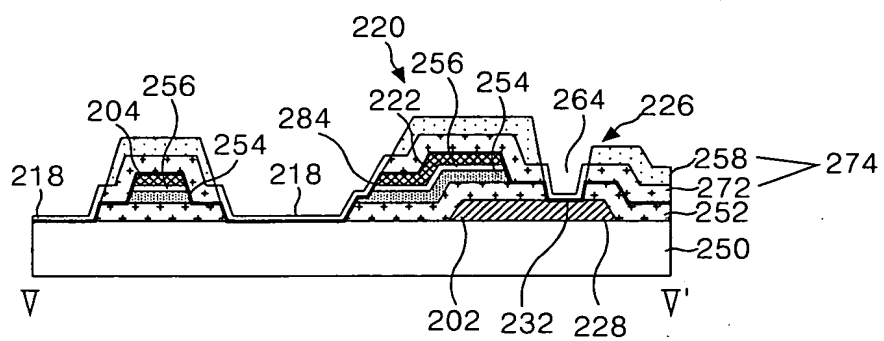


FIG. 21

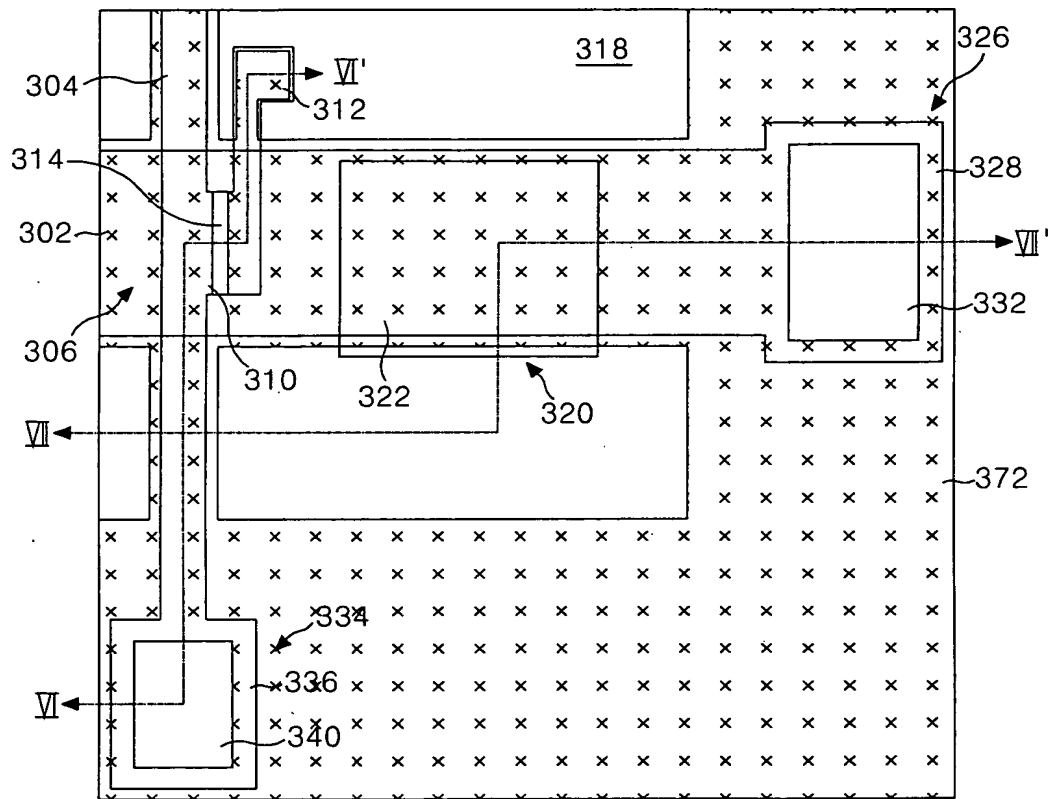


FIG. 22

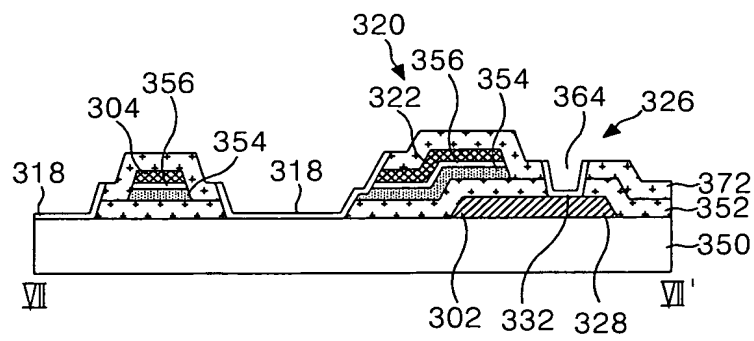
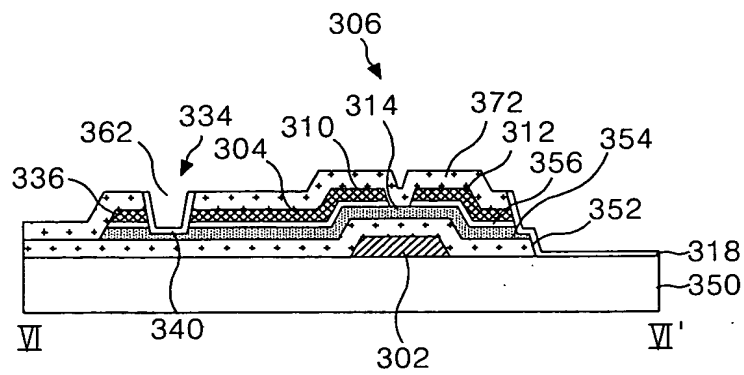


FIG. 23A

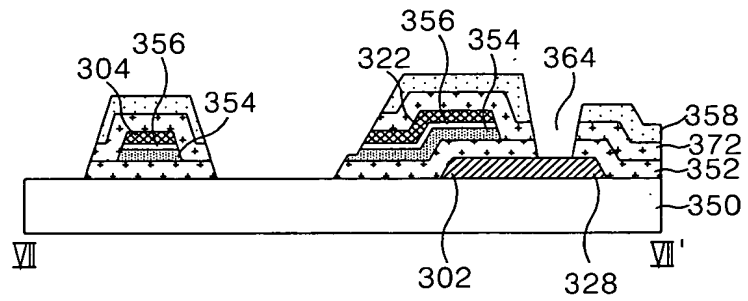
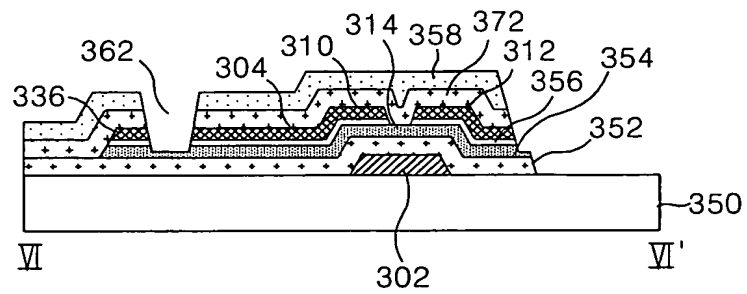


FIG. 23B

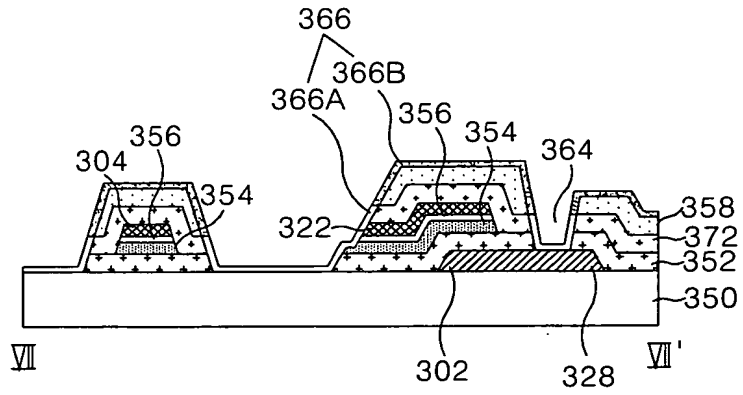
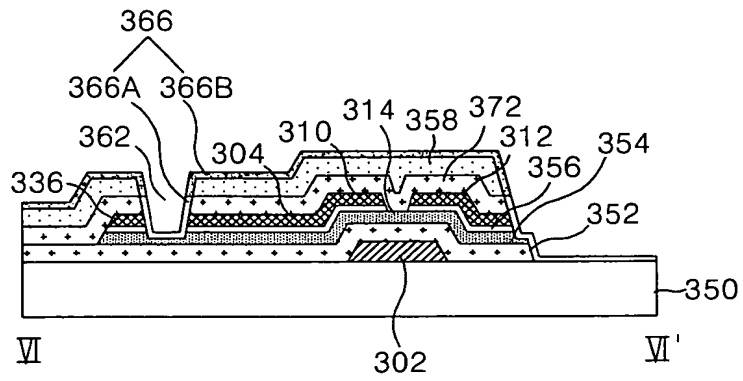


FIG.23C

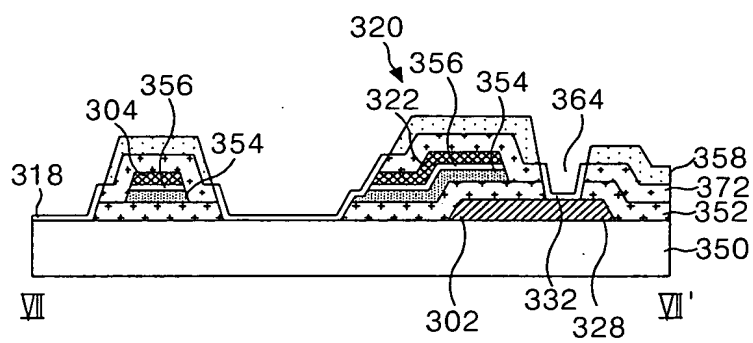
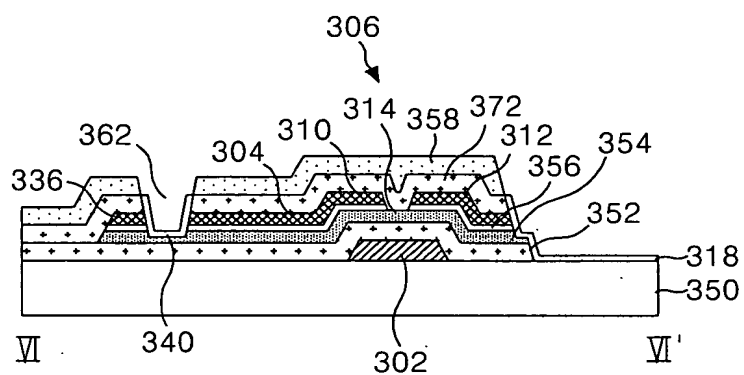
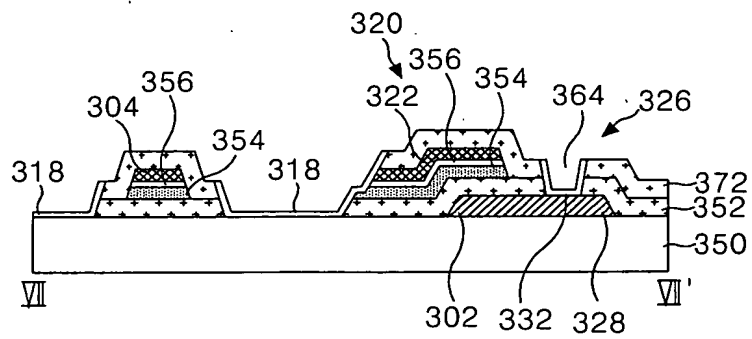
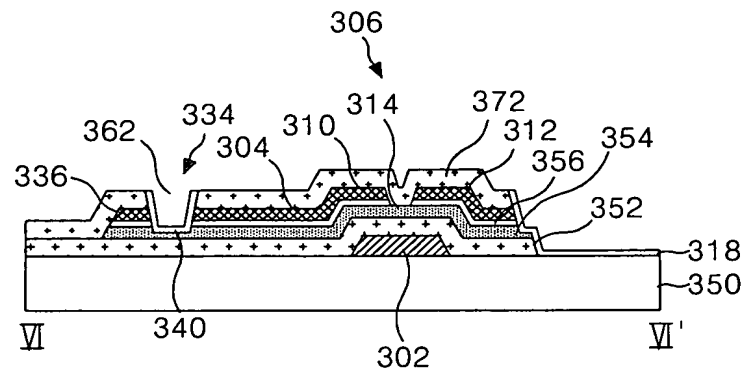


FIG. 23D



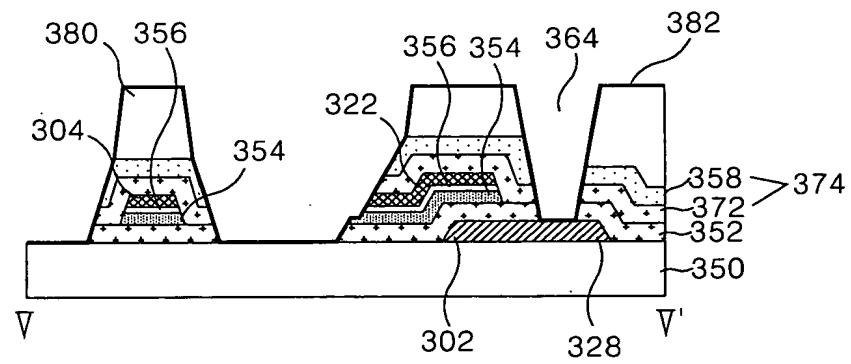


FIG. 24B

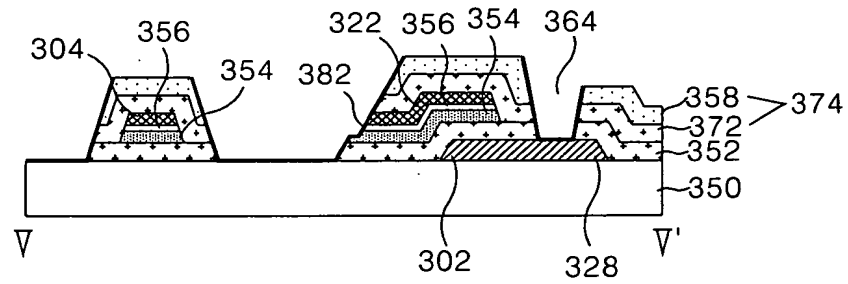
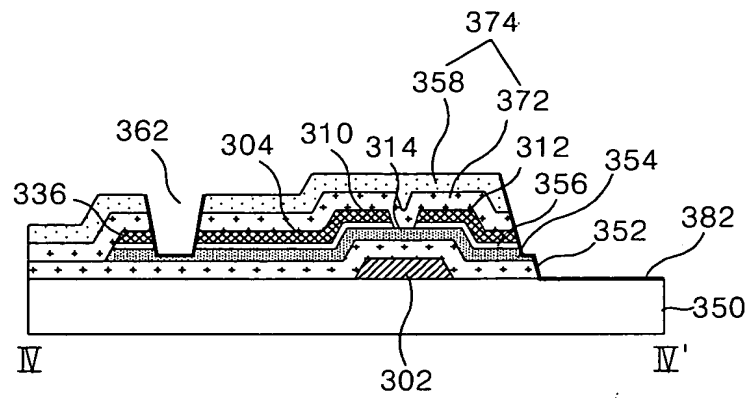


FIG. 24C

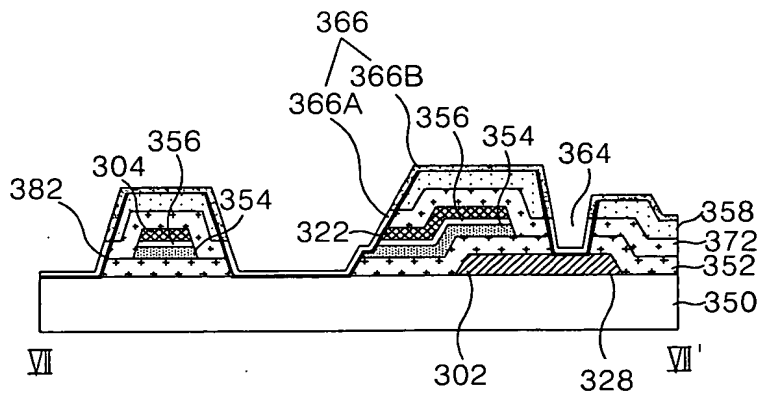
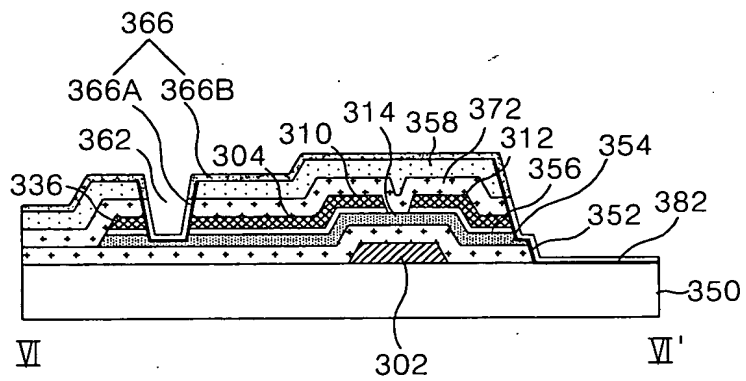


FIG. 24D

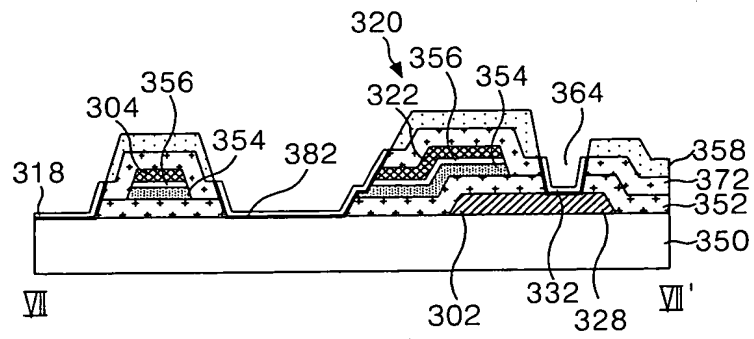
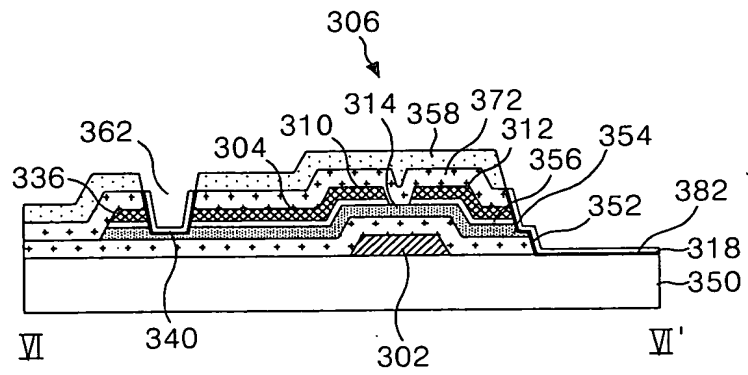


FIG. 24E

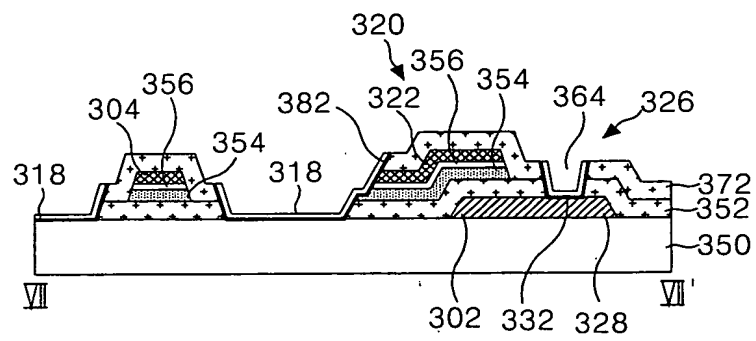
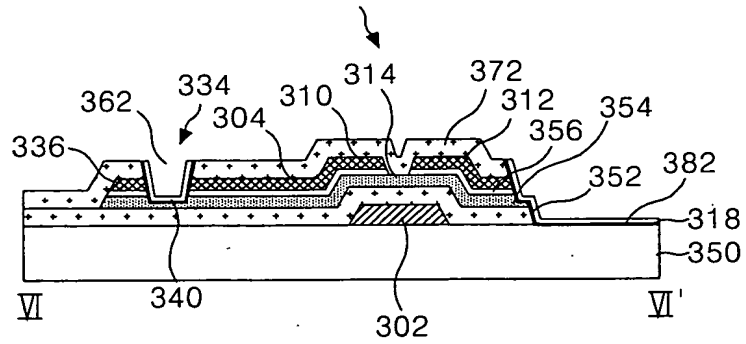


FIG. 25A

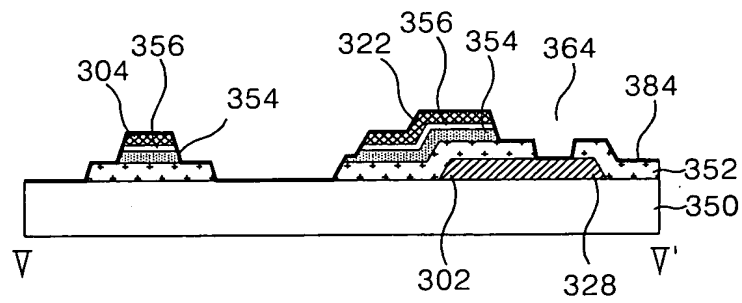
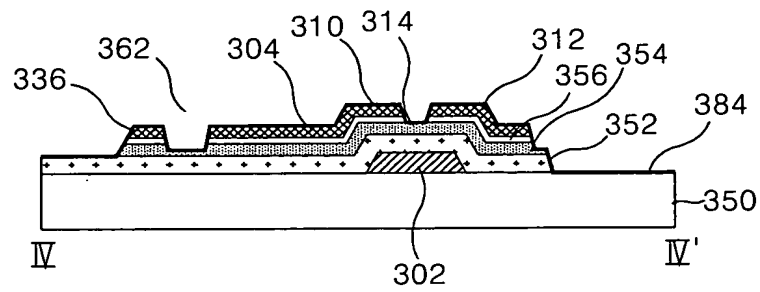
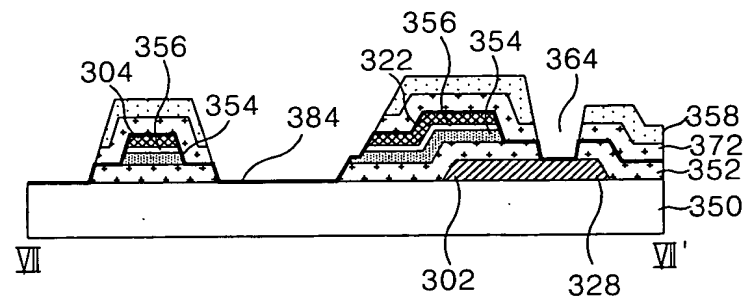
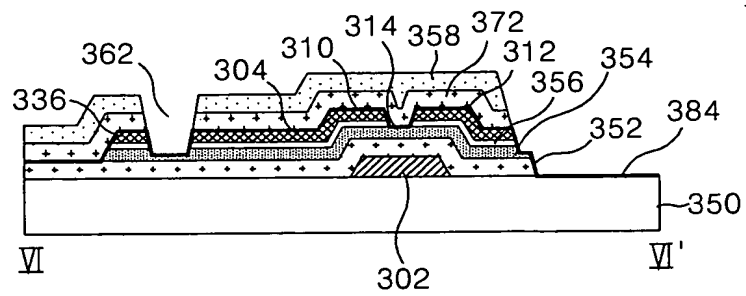


FIG. 25B



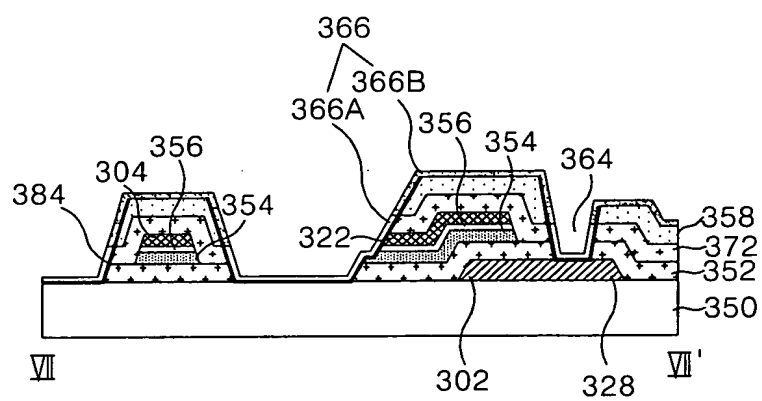


FIG. 25D

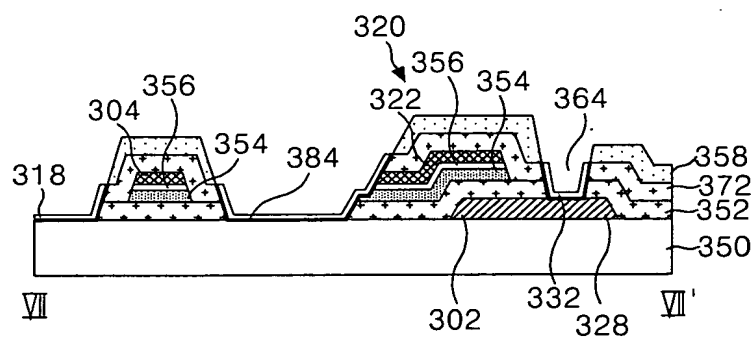
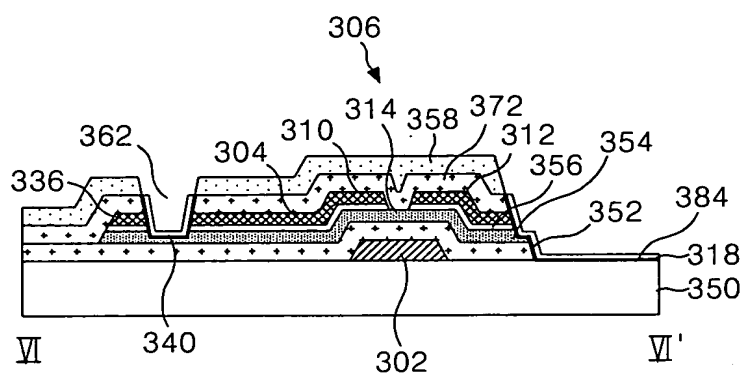


FIG. 25E

